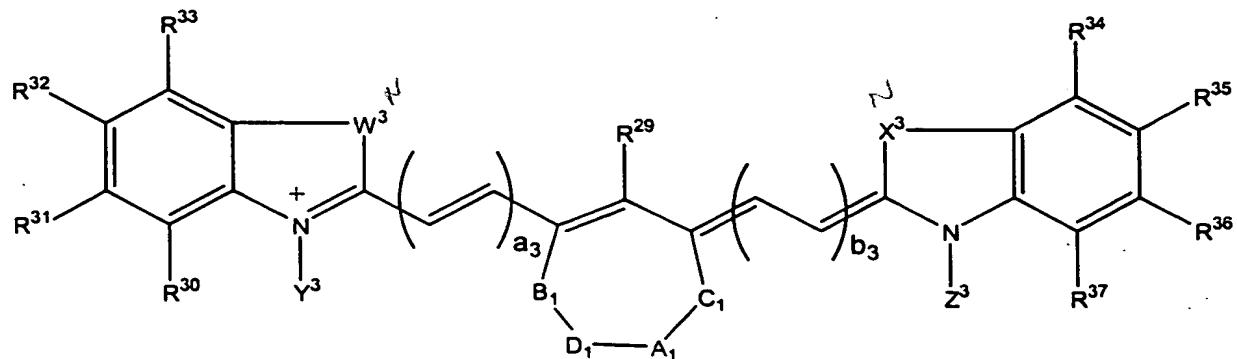


What is claimed is:

1. A compound of formula



wherein  $W^3$  and  $X^3$  are independently selected from the group consisting of  $-CR^1R^2$ ,  $-O-$ ,  $-NR^3$ ,  $-S-$ , and  $-Se$ ;  $Y^3$  is selected from the group consisting of  $-(CH_2)_a-CONH-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Bm$ ,

5  $-(CH_2)_a-NHCO-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$ ,  
 $-(CH_2)_a-N(R^3)-(CH_2)_b-CONH-Bm$ ,  $(CH_2)_a-N(R^3)-(CH_2)_c-NHCO-Bm$ ,  
 $-(CH_2)_a-N(R^3)-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Bm$ ,  
 $-(CH_2)_a-N(R^3)-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$ ,  
 $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-(CH_2)_a-CONH-Bm$ ,

10  $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-(CH_2)_a-NHCO-Bm$ ,  
 $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-CH_2-(CH_2OCH_2)_d-CONH-Bm$ ,  
 $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-CH_2-(CH_2OCH_2)_d-NHCO-Bm$ ,  $-(CH_2)_a-NR^3R^4$ ,  
and  $-CH_2-(CH_2OCH_2)_b-CH_2NR^3R^4$ ;  $Z^3$  is selected from the group consisting of  $-(CH_2)_a-CONH-Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Dm$ ,  $-(CH_2)_a-NHCO-Dm$ ,

15  $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Dm$ ,  $-(CH_2)_a-N(R^3)-(CH_2)_b-CONH-Dm$ ,

(CH<sub>2</sub>)<sub>a</sub>-N(R<sup>3</sup>)-(CH<sub>2</sub>)<sub>c</sub>-NHCO-Dm, -(CH<sub>2</sub>)<sub>a</sub>-N(R<sup>3</sup>)-CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-CONH-  
Dm, -(CH<sub>2</sub>)<sub>a</sub>-N(R<sup>3</sup>)-CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-NHCO-Dm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-  
N(R<sup>3</sup>)-(CH<sub>2</sub>)<sub>a</sub>-CONH-Dm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-N(R<sup>3</sup>)-(CH<sub>2</sub>)<sub>a</sub>-NHCO-Dm,  
5 -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-N(R<sup>3</sup>)-CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>d</sub>-CONH-Dm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-  
CH<sub>2</sub>-N(R<sup>3</sup>)-CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>d</sub>-NHCO-Dm, -(CH<sub>2</sub>)<sub>a</sub>-NR<sup>3</sup>R<sup>4</sup>, and  
-CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>; A<sub>1</sub> is a single or a double bond; B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub>  
20 are independently selected from the group consisting of -O-, -S-, -Se-, -P-,  
-CR<sup>1</sup>R<sup>2</sup>, -CR<sup>1</sup>, alkyl, NR<sup>3</sup>, and -C=O; A<sub>1</sub>, B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub> may together form  
a 6- to 12-membered carbocyclic ring or a 6- to 12-membered  
heterocyclic ring optionally containing one or more oxygen, nitrogen, or  
sulfur atom; a<sub>3</sub> and b<sub>3</sub> are independently from 0 to 5; R<sup>1</sup> to R<sup>4</sup>, and R<sup>29</sup> to  
25 R<sup>37</sup> are independently selected from the group consisting of hydrogen,  
C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>5</sub>-C<sub>20</sub> aryl, C<sub>1</sub>-C<sub>10</sub> alkoxy, C<sub>1</sub>-C<sub>10</sub> polyalkoxyalkyl, C<sub>1</sub>-C<sub>20</sub>  
polyhydroxyalkyl, C<sub>5</sub>-C<sub>20</sub> polyhydroxyaryl, C<sub>1</sub>-C<sub>10</sub> aminoalkyl, cyano, nitro,  
halogen, saccharide, peptide, -CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-OH, -(CH<sub>2</sub>)<sub>a</sub>-CO<sub>2</sub>H,  
-(CH<sub>2</sub>)<sub>a</sub>-CONH-Bm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-CONH-Bm, -(CH<sub>2</sub>)<sub>a</sub>-NHCO-Bm,  
30 -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-NHCO-Bm, -(CH<sub>2</sub>)<sub>a</sub>-OH and -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CO<sub>2</sub>H;  
Bm and Dm are independently selected from the group consisting of a  
bioactive peptide, a protein, a cell, an antibody, an antibody fragment, a  
saccharide, a glycopeptide, a peptidomimetic, a drug, a drug mimic, a  
hormone, a metal chelating agent, a radioactive or nonradioactive metal  
35 complex, and an echogenic agent; a and c are independently from 1 to  
20; and b and d are independently vary from 1 to 100.

2. The compound of claim 1 wherein W<sup>3</sup> and X<sup>3</sup> are independently selected from the group consisting of -C(CH<sub>3</sub>)<sub>2</sub>, -C((CH<sub>2</sub>)<sub>a</sub>OH)CH<sub>3</sub>, -C((CH<sub>2</sub>)<sub>a</sub>OH)<sub>2</sub>, -C((CH<sub>2</sub>)<sub>a</sub>CO<sub>2</sub>H)CH<sub>3</sub>, -C((CH<sub>2</sub>)<sub>a</sub>CO<sub>2</sub>H)<sub>2</sub>, -C((CH<sub>2</sub>)<sub>a</sub>NH<sub>2</sub>)CH<sub>3</sub>, C((CH<sub>2</sub>)<sub>a</sub>NH<sub>2</sub>)<sub>2</sub>, C((CH<sub>2</sub>)<sub>a</sub>NR<sup>3</sup>R<sup>4</sup>)<sub>2</sub>, -NR<sup>3</sup>, and -S-; Y<sup>3</sup> is selected from the group consisting of -(CH<sub>2</sub>)<sub>a</sub>-CONH-Bm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-CONH-Bm, -(CH<sub>2</sub>)<sub>a</sub>-NHCO-Bm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-NHCO-Bm, -(CH<sub>2</sub>)<sub>a</sub>-NR<sup>3</sup>R<sup>4</sup>, and -CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>; Z<sup>3</sup> is selected from the group consisting of -(CH<sub>2</sub>)<sub>a</sub>-CONH-Dm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-CONH-Dm, -(CH<sub>2</sub>)<sub>a</sub>-NHCO-Dm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-NHCO-Dm, -(CH<sub>2</sub>)<sub>a</sub>-NR<sup>3</sup>R<sup>4</sup>, and -CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>; A<sub>1</sub> is a single or a double bond; B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub> are independently selected from the group consisting of -O-, -S-, NR<sup>3</sup>, (CH<sub>2</sub>)<sub>a</sub>-CR<sup>1</sup>R<sup>2</sup>, and -CR<sup>1</sup>; A<sub>1</sub>, B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub> may together form a 6- to 10-membered carbocyclic ring or a 6- to 10-membered heterocyclic ring optionally containing one or more oxygen, nitrogen, or sulfur atom; a<sub>3</sub> and b<sub>3</sub> are independently from 0 to 3; R<sup>1</sup> to R<sup>4</sup>, and R<sup>29</sup> to R<sup>37</sup> are independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>5</sub>-C<sub>12</sub> aryl, C<sub>1</sub>-C<sub>10</sub> alkoxy, C<sub>1</sub>-C<sub>10</sub> polyhydroxyalkyl, C<sub>5</sub>-C<sub>12</sub> polyhydroxyaryl, C<sub>1</sub>-C<sub>10</sub> aminoalkyl, mono- or oligosaccharide, peptide with 2 to 30 amino acid units, -CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-OH, -(CH<sub>2</sub>)<sub>a</sub>-CO<sub>2</sub>H, -(CH<sub>2</sub>)<sub>a</sub>-CONH-Bm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-CONH-Bm, -(CH<sub>2</sub>)<sub>a</sub>-NHCO-Bm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-NHCO-Bm, -(CH<sub>2</sub>)<sub>a</sub>-OH and -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CO<sub>2</sub>H; Bm and Dm are independently selected from the group consisting of a bioactive peptide containing 2 to 30 amino acid

units, an antibody, a mono- or oligosaccharide, a glycopeptide, a metal  
25 chelating agent, a radioactive or nonradioactive metal complex, and an  
echogenic agent; a and c are independently from 1 to 10; and b and d are  
independently from 1 to 30.

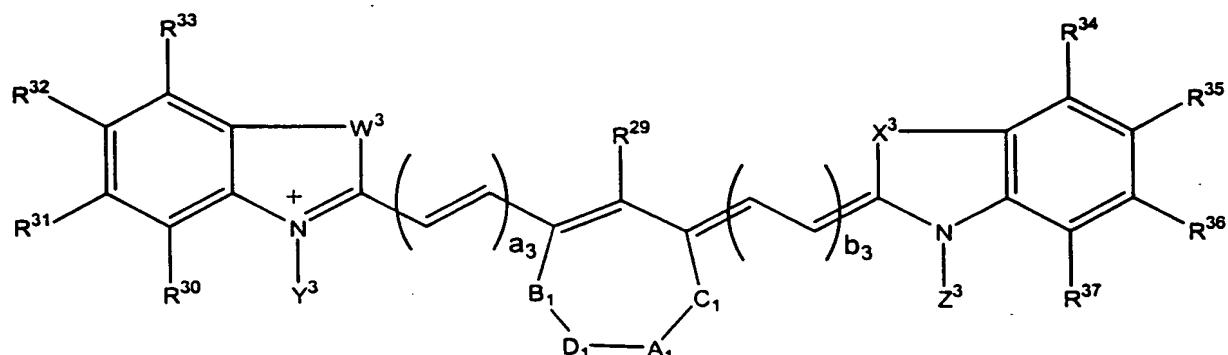
3. The compound of claim 2 wherein each of W<sup>3</sup> and X<sup>3</sup> is  
C((CH<sub>2</sub>)OH)<sub>2</sub>; Y<sup>3</sup> is -(CH<sub>2</sub>)<sub>2</sub>-CONH-Bm; Z<sup>3</sup> is -(CH<sub>2</sub>)<sub>2</sub>-CONH-Dm; A<sub>1</sub> is a  
single bond; A<sub>1</sub>, B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub>, together form a 6-membered carbocyclic  
ring; each of a<sub>3</sub> and b<sub>3</sub> is 1; R<sup>29</sup> is galactose; each of R<sup>30</sup> to R<sup>37</sup> is  
5 hydrogen; Bm is Octreotide; and Dm is bombesin.

4. A method for performing a diagnostic or therapeutic procedure

comprising

administering to an individual an effective amount of the

compound of formula



5 wherein  $W^3$  and  $X^3$  are independently selected from the group consisting of  $-CR^1R^2$ ,  $-O-$ ,  $-NR^3$ ,  $-S-$ , and  $-Se$ ;  $Y^3$  is selected from the group consisting of  $-(CH_2)_aCONH-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Bm$ ,  $-(CH_2)_a-NHCO-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$ ,  $-(CH_2)_a-N(R^3)-(CH_2)_b-CONH-Bm$ ,  $(CH_2)_a-N(R^3)-(CH_2)_c-NHCO-Bm$ ,  $-(CH_2)_a-N(R^3)-CH_2-(CH_2OCH_2)_b-CONH-Bm$ ,  $CH_2-CONH-Bm$ ,  $-(CH_2)_a-N(R^3)-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-(CH_2)_a-CONH-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-(CH_2)_a-NHCO-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-CH_2-(CH_2OCH_2)_a-CONH-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-CH_2-(CH_2OCH_2)_a-NHCO-Bm$ ,  $-(CH_2)_a-NR^3R^4$ , and  $-CH_2(CH_2OCH_2)_b-CH_2NR^3R^4$ ;  $Z^3$  is selected from the group consisting of  $-(CH_2)_a-CONH-Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Dm$ ,  $-(CH_2)_a-NHCO-Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Dm$ ,  $-(CH_2)_a-N(R^3)-(CH_2)_b-CONH-Dm$ ,  $(CH_2)_a-N(R^3)-(CH_2)_c-NHCO-Dm$ ,

$-(CH_2)_a-N(R^3)-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Dm$ ,  $-(CH_2)_a-N(R^3)-CH_2-$   
 $(CH_2OCH_2)_b-CH_2-NHCO-Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-(CH_2)_a-CONH-$   
 $Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-(CH_2)_a-NHCO-Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-$

20 N(R<sup>3</sup>)-CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>a</sub>-CONH-Dm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-N(R<sup>1</sup>)<sub>c</sub>-CH<sub>2</sub>  
(CH<sub>2</sub>OCH<sub>2</sub>)<sub>d</sub>-NHCO-Dm, -(CH<sub>2</sub>)<sub>a</sub>-NR<sup>3</sup>R<sup>4</sup>, and -CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>; A<sub>1</sub>  
is a single or a double bond; B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub> are independently selected from the group consisting of -O-, -S-, -Se-, -P-, -CR<sup>1</sup>R<sup>2</sup>, -CR<sup>1</sup>, alkyl, NR<sup>3</sup>,  
and -C=O; A<sub>1</sub>, B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub> may together form a 6- to 12-membered carbocyclic ring or a 6- to 12-membered heterocyclic ring optionally  
25 containing one or more oxygen, nitrogen, or sulfur atom; a<sub>3</sub> and b<sub>3</sub> are independently from 0 to 5; R<sup>1</sup> to R<sup>4</sup>, and R<sup>29</sup> to R<sup>37</sup> are independently selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>5</sub>-C<sub>20</sub> aryl, C<sub>1</sub>-C<sub>10</sub> alkoxy, C<sub>1</sub>-C<sub>10</sub> polyalkoxyalkyl, C<sub>1</sub>-C<sub>20</sub> polyhydroxyalkyl, C<sub>5</sub>-C<sub>20</sub> polyhydroxyaryl, C<sub>1</sub>-C<sub>10</sub> aminoalkyl, cyano, nitro, halogen, saccharide,  
30 peptide, -CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-OH, -(CH<sub>2</sub>)<sub>a</sub>-CO<sub>2</sub>H, -(CH<sub>2</sub>)<sub>a</sub>-CONH-Bm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-CONH-Bm, -(CH<sub>2</sub>)<sub>a</sub>-NHCO-Bm,  
-CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-NHCO-Bm, -(CH<sub>2</sub>)<sub>a</sub>-OH and -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CO<sub>2</sub>H; Bm and Dm are independently selected from the group consisting of a  
35 bioactive peptide, a protein, a cell, an antibody, an antibody fragment, a saccharide, a glycopeptide, a peptidomimetic, a drug, a drug mimic, a hormone, a metal chelating agent, a radioactive or nonradioactive metal complex, and an echogenic agent; a and c are independently from 1 to

20; and b and d are independently from 1 to 100, and a pharmaceutically  
40 acceptable carrier or excipient to form a composition,  
activating the compound using light, and  
performing the diagnostic or therapeutic procedure.

5. The method of claim 4 comprising administering to an individual an  
effective amount of the compound wherein W<sup>3</sup> and X<sup>3</sup> are independently  
selected from the group consisting of -C(CH<sub>3</sub>)<sub>2</sub> , -C((CH<sub>2</sub>)<sub>a</sub>OH)CH<sub>3</sub> ,  
-C((CH<sub>2</sub>)<sub>a</sub>OH)<sub>2</sub> , -C((CH<sub>2</sub>)<sub>a</sub>CO<sub>2</sub>H)CH<sub>3</sub> , -C((CH<sub>2</sub>)<sub>a</sub>CO<sub>2</sub>H)<sub>2</sub> ,  
5 -C((CH<sub>2</sub>)<sub>a</sub>NH<sub>2</sub>)CH<sub>3</sub> , C((CH<sub>2</sub>)<sub>a</sub>NH<sub>2</sub>)<sub>2</sub> , C((CH<sub>2</sub>)<sub>a</sub>NR<sup>3</sup>R<sup>4</sup>)<sub>2</sub> , -NR<sup>3</sup> , and -S-; Y<sup>3</sup> is  
selected from the group consisting of -(CH<sub>2</sub>)<sub>a</sub>-CONH-Bm, -CH<sub>2</sub>-  
(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-CONH-Bm, -(CH<sub>2</sub>)<sub>a</sub>-NHCO-Bm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-  
NHCO-Bm, -(CH<sub>2</sub>)<sub>a</sub>-NR<sup>3</sup>R<sup>4</sup> , and -CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>; Z<sup>3</sup> is selected  
from the group consisting of -(CH<sub>2</sub>)<sub>a</sub>-CONH-Dm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-  
10 CONH-Dm, -(CH<sub>2</sub>)<sub>a</sub>-NHCO-Dm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-NHCO-Dm, -(CH<sub>2</sub>)<sub>a</sub>-  
NR<sup>3</sup>R<sup>4</sup> , and -CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>; A<sub>1</sub> is a single or a double bond;  
B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub> are independently selected from the group consisting of  
-O-, -S-, NR<sup>3</sup>, (CH<sub>2</sub>)<sub>a</sub>-CR<sup>1</sup>R<sup>2</sup>, and -CR<sup>1</sup>; A<sub>1</sub>, B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub> may together  
form a 6- to 10-membered carbocyclic ring or a 6- to 10-membered  
15 heterocyclic ring optionally containing one or more oxygen, nitrogen, or  
sulfur atom; a<sub>3</sub> and b<sub>3</sub> independently vary from 0 to 3; R<sup>1</sup> to R<sup>4</sup>, and R<sup>29</sup> to  
R<sup>37</sup> are independently selected from the group consisting of hydrogen, C<sub>1</sub>-  
C<sub>10</sub> alkyl, C<sub>5</sub>-C<sub>12</sub> aryl, C<sub>1</sub>-C<sub>10</sub> alkoxy, C<sub>1</sub>-C<sub>10</sub> polyhydroxyalkyl, C<sub>5</sub>-C<sub>12</sub>

polyhydroxyaryl, C<sub>1</sub>-C<sub>10</sub> aminoalkyl, mono- or oligosaccharide, peptide with 2 to 30 amino acid units, -CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-OH, -(CH<sub>2</sub>)<sub>a</sub>-CO<sub>2</sub>H, -(CH<sub>2</sub>)<sub>a</sub>-CONH-Bm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-CONH-Bm, -(CH<sub>2</sub>)<sub>a</sub>-NHCO-Bm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-NHCO-Bm, -(CH<sub>2</sub>)<sub>a</sub>-OH and -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CO<sub>2</sub>H;

25 Bm and Dm are independently selected from the group consisting of a bioactive peptide containing 2 to 30 amino acid units, an antibody, a mono- or oligosaccharide, a glycopeptide, a metal chelating agent, a radioactive or nonradioactive metal complex, and an echogenic agent; a and c are independently from 1 to 10; and b and d are independently from 1 to 30.

6. The method of claim 5 comprising administering to an individual an effective amount of the compound wherein each of W<sup>3</sup> and X<sup>3</sup> is C((CH<sub>2</sub>)OH)<sub>2</sub>; Y<sup>3</sup> is -(CH<sub>2</sub>)<sub>2</sub>-CONH-Bm; Z<sup>3</sup> is -(CH<sub>2</sub>)<sub>2</sub>-CONH-Dm; A<sub>1</sub> is a single bond; A<sub>1</sub>, B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub> together form a 6-membered carbocyclic 5 ring; each a<sub>3</sub> and b<sub>3</sub> is 1; R<sup>30</sup> to R<sup>37</sup> is hydrogen; Bm is Octreotide; and Dm is bombesin (7-14).

7. The method of claim 4 wherein said procedure uses light of wavelength in the region of 350-1300 nm.

8. The method of claim 4 wherein the diagnostic procedure is optical tomography.

9. The method of claim 4 wherein the diagnostic procedure is fluorescence endoscopy.

10. The method of claim 4 further comprising monitoring a blood clearance profile of said compound by a method selected from the group consisting of fluorescence, absorbance, and light scattering, wherein light of wavelength in the region of 350-1300 nm is used.

11. The method of claim 4 wherein said procedure further comprises imaging and therapy, wherein said imaging and therapy is selected from the group consisting of absorption, light scattering, photoacoustic and sonofluorescence technique.

12. The method of claim 4 wherein said procedure is capable of diagnosing atherosclerotic plaques and blood clots.

13. The method of claim 4 wherein said procedure comprises administering localized therapy.

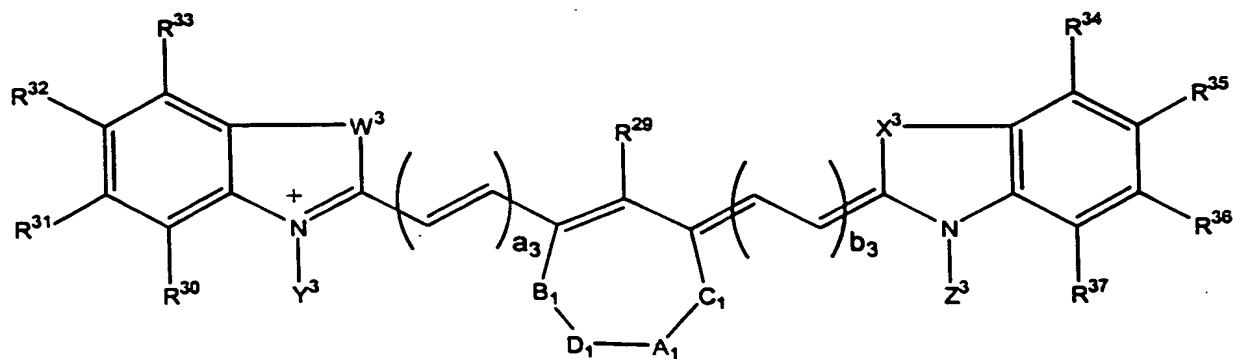
14. The method of claim 4 wherein said therapeutic procedure comprises photodynamic therapy.

15. The method of claim 4 wherein said therapeutic procedure comprises laser assisted guided surgery for the detection of micrometastases.

16. The method of claim 4 further comprising adding a biocompatible organic solvent to the at a concentration of one to fifty percent to the composition to prevent *in vivo* or *in vitro* fluorescence quenching.

17. The method of claim 16 wherein said compound is dissolved in a medium comprising one to fifty percent dimethyl sulfoxide.

18. A composition comprising a cyanine dye bioconjugate of formula



wherein  $W^3$  and  $X^3$  are independently selected from the group consisting of  $-CR^1R^2$ ,  $-O-$ ,  $-NR^3$ ,  $-S-$ , and  $-Se$ ;  $Y^3$  is selected from the group consisting of  $-(CH_2)_a-CONH-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Bm$ ,  $-(CH_2)_a-$  5  $NHCO-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$ ,  $-(CH_2)_a-N(R^3)-(CH_2)_b-CONH-$   $Bm$ ,  $(CH_2)_a-N(R^3)-(CH_2)_c-NHCO-Bm$ ,  $-(CH_2)_a-N(R^3)-CH_2-(CH_2OCH_2)_b-CH_2-$   $CONH-Bm$ ,  $-(CH_2)_a-N(R^3)-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$ ,  $-CH_2-$  10  $(CH_2OCH_2)_b-CH_2-N(R^3)-(CH_2)_a-CONH-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-$   $(CH_2)_a-NHCO-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-CH_2-(CH_2OCH_2)_d-CONH-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-CH_2-(CH_2OCH_2)_d-NHCO-Bm$ ,  $-(CH_2)_a-NR^3R^4$ , and  $-CH_2(CH_2OCH_2)_b-CH_2NR^3R^4$ ;  $Z^3$  is selected from the group consisting of  $-(CH_2)_a-CONH-Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Dm$ ,  $-(CH_2)_a-NHCO-Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Dm$ ,  $-(CH_2)_a-N(R^3)-(CH_2)_b-CONH-Dm$ ,  $(CH_2)_a-$  15  $N(R^3)-(CH_2)_c-NHCO-Dm$ ,  $-(CH_2)_a-N(R^3)-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Dm$ ,  $-(CH_2)_a-N(R^3)-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-$   $N(R^3)-(CH_2)_a-CONH-Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-(CH_2)_a-NHCO-Dm$ ,

-CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-N(R<sup>3</sup>)-CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>d</sub>-CONH-Dm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-

CH<sub>2</sub>-N(R<sup>3</sup>)-CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>d</sub>-NHCO-Dm, -(CH<sub>2</sub>)<sub>a</sub>-NR<sup>3</sup>R<sup>4</sup>, and

-CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>NR<sup>3</sup>R<sup>4</sup>; A<sub>1</sub> is a single or a double bond; B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub>

20 are independently selected from the group consisting of -O-, -S-, -Se-, -P-,  
-CR<sup>1</sup>R<sup>2</sup>, -CR<sup>1</sup>, alkyl, NR<sup>3</sup>, and -C=O; A<sub>1</sub>, B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub> may together form

a 6- to 12-membered carbocyclic ring or a 6- to 12-membered

heterocyclic ring optionally containing one or more oxygen, nitrogen, or

sulfur atom; a<sub>3</sub> and b<sub>3</sub> are independently from 0 to 5; R<sup>1</sup> to R<sup>4</sup>, and R<sup>29</sup> to

25 R<sup>37</sup> are independently selected from the group consisting of hydrogen, C<sub>1</sub>-  
C<sub>10</sub> alkyl, C<sub>5</sub>-C<sub>20</sub> aryl, C<sub>1</sub>-C<sub>10</sub> alkoxy, C<sub>1</sub>-C<sub>10</sub> polyalkoxyalkyl, C<sub>1</sub>-C<sub>20</sub>  
polyhydroxyalkyl, C<sub>5</sub>-C<sub>20</sub> polyhydroxyaryl, C<sub>1</sub>-C<sub>10</sub> aminoalkyl, cyano, nitro,  
halogen, saccharide, peptide, -CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-OH, -(CH<sub>2</sub>)<sub>a</sub>-CO<sub>2</sub>H,  
-(CH<sub>2</sub>)<sub>a</sub>-CONH-Bm, -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-CONH-Bm, -(CH<sub>2</sub>)<sub>a</sub>-NHCO-Bm,

30 -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CH<sub>2</sub>-NHCO-Bm, -(CH<sub>2</sub>)<sub>a</sub>-OH and -CH<sub>2</sub>-(CH<sub>2</sub>OCH<sub>2</sub>)<sub>b</sub>-CO<sub>2</sub>H;  
Bm and Dm are independently selected from the group consisting of a  
bioactive peptide, a protein, a cell, an antibody, an antibody fragment, a  
saccharide, a glycopeptide, a peptidomimetic, a drug, a drug mimic, a  
hormone, a metal chelating agent, a radioactive or nonradioactive metal  
35 complex, and an echogenic agent; a and c are independently from 1 to  
20; and b and d are independently vary from 1 to 100, and a  
pharmaceutically acceptable carrier or excipient.

19. The composition of claim 18 wherein  $W^3$  and  $X^3$  are independently selected from the group consisting of  $-C(CH_3)_2$ ,  $-C((CH_2)_aOH)CH_3$ ,  $-C((CH_2)_aOH)_2$ ,  $-C((CH_2)_aCO_2H)CH_3$ ,  $-C((CH_2)_aCO_2H)_2$ ,  $-C((CH_2)_aNH_2)CH_3$ ,  $C((CH_2)_aNH_2)_2$ ,  $C((CH_2)_aNR^3R^4)_2$ ,  $-NR^3$ , and  $-S-$ ;  $Y^3$  is selected from the group consisting of  $-(CH_2)_aCONH-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Bm$ ,  $-(CH_2)_a-NHCO-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$ ,  $-(CH_2)_a-NR^3R^4$ , and  $-CH_2(CH_2OCH_2)_b-CH_2NR^3R^4$ ;  $Z^3$  is selected from the group consisting of  $-(CH_2)_aCONH-Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Dm$ ,  $-(CH_2)_a-NHCO-Dm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Dm$ ,  $-(CH_2)_a-NR^3R^4$ , and  $-CH_2(CH_2OCH_2)_b-CH_2NR^3R^4$ ;  $A_1$  is a single or a double bond;  $B_1$ ,  $C_1$ , and  $D_1$  are independently selected from the group consisting of  $-O-$ ,  $-S-$ ,  $NR^3$ ,  $(CH_2)_a-CR^1R^2$ , and  $-CR^1$ ;  $A_1$ ,  $B_1$ ,  $C_1$ , and  $D_1$  may together form a 6- to 10-membered carbocyclic ring or a 6- to 10-membered heterocyclic ring optionally containing one or more oxygen, nitrogen, or sulfur atom;  $a_3$  and  $b_3$  are independently from 0 to 3;  $R^1$  to  $R^4$ , and  $R^{29}$  to  $R^{37}$  are independently selected from the group consisting of hydrogen,  $C_1-C_{10}$  alkyl,  $C_5-C_{12}$  aryl,  $C_1-C_{10}$  alkoxy,  $C_1-C_{10}$  polyhydroxyalkyl,  $C_5-C_{12}$  polyhydroxyaryl,  $C_1-C_{10}$  aminoalkyl, mono- or oligosaccharide, peptide with 2 to 30 amino acid units,  $-CH_2(CH_2OCH_2)_b-CH_2-OH$ ,  $-(CH_2)_a-CO_2H$ ,  $-(CH_2)_a-CONH-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Bm$ ,  $-(CH_2)_a-NHCO-Bm$ ,  $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$ ,  $-(CH_2)_a-OH$  and  $-CH_2-(CH_2OCH_2)_b-CO_2H$ ;  $Bm$  and  $Dm$  are independently selected from the group consisting of a bioactive peptide containing 2 to 30 amino acid units, an antibody, a

mono- or oligosaccharide, a glycopeptide, a metal chelating agent, a

25 radioactive or nonradioactive metal complex, and an echogenic agent; a  
and c are independently from 1 to 10; and b and d are independently from  
1 to 30.

20. The composition of claim 19 wherein each of W<sup>3</sup> and X<sup>3</sup> is

C((CH<sub>2</sub>)OH)<sub>2</sub>; Y<sup>3</sup> is -(CH<sub>2</sub>)<sub>2</sub>-CONH-Bm; Z<sup>3</sup> is -(CH<sub>2</sub>)<sub>2</sub>-CONH-Dm; A<sub>1</sub> is a  
single bond; A<sub>1</sub>, B<sub>1</sub>, C<sub>1</sub>, and D<sub>1</sub> together form a 6-membered carbocyclic  
ring; each of a<sub>3</sub> and b<sub>3</sub> is 1; R<sup>29</sup> is galactose; each of R<sup>30</sup> to R<sup>37</sup> is  
5 hydrogen; Bm is Octreotide; and Dm is bombesin (7-14).

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